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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/790,264

03/01/2004

Siroos K. Afshar

2003-0266

3519

83811 7590 08/18/2009
AT & T LEGAL DEPARTMENT - WT
PATENT DOCKETING
ROOM 2A-207, ONE AT& T WAY
BEDMINSTER, NJ 07921

EXAMINER

ADDY, THUAN KNOWLIN

ART UNIT

PAPER NUMBER

2614

MAIL DATE

DELIVERY MODE

08/18/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/790,264	Applicant(s) AFSHAR ET AL.	
	Examiner THJUAN K. ADDY	Art Unit 2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 May 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-44 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-44 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on May 18, 2009 has been entered. Claims 1, 4, 5, 8, 9, 16, 17, 19, and 25 have been amended. Claim 3 has been cancelled. No claims have been added. Claims 1, 2, and 4-44 are now pending in this application, with claims 1, 16, 19, 25, 31, and 42 being independent.

Claim Rejections - 35 USC § 102

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 2, and 4-44 are rejected under 35 U.S.C. 102(e) as being anticipated by Peters, Jr. et al. (US Patent Application, Pub. No.: US 2008/0107130 A1).

4. In regards to claim 1, Peters, Jr. discloses a scalable system for providing real time communication services between user devices (e.g., communication devices) (See pg. 1, paragraph [0004]), the scalable system comprising: at least one call control element (CCE) (See Fig. 2 and Call Control Element (CCE) 24) providing system call control functions (See pg. 2, paragraph [0021]); at least one scalable border element (BE) (See Fig. 2 and Border Elements (BEs) 26a-26d) providing scalable system interface functions and in communication with said CCE (See pg. 2, paragraph [0022]); a first user device (See Fig. 2 and first communication device 22a) for initiating a call and in communication with said at least one scalable BE; and a second user device

(See Fig. 2 and second communication device 22b) acting as a call destination device and in communication with said at least one scalable BE (See pg. 3, paragraph [0029] – [0030]), wherein the at least one scalable border element comprises: a BE signaling entity (e.g., H.323 BE 26c, See Fig. 2) providing BE signaling functions and in communication with said CCE; a first BE media entity (e.g., SIP BE 26d) providing BE media functions in communication with said BE signaling entity and in communication with said first user device for initiating a call; and a second BE media entity (e.g., SIP BE 26b) providing BE media functions in communication with said BE signaling entity, in communication with said first BE media entity for media transfers and in communication with a second user device (See Fig. 2 and second communication device 22b) acting as a call destination device (See pg. 2, paragraph [0022]).

5. In regards to claims 2 and 32, Peters, Jr. discloses the scalable system and decomposed BE, wherein the at least one scalable border element (BE) providing scalable system interface functions further comprises: signaling functions including call setup signaling functions; media control functions including transcoding functions; security functions including firewall and encryption and decryption functions; and call admission control functions including call authentication functions (See pg. 4, paragraph [0041]).

6. In regards to claims 4, 23, 28, and 35, Peters, Jr. discloses the scalable system, BE signaling entity, BE media entity, and decomposed BE, wherein the BE signaling functions further comprises: user agent functions; proxy functions; and back to back user agent functions (See pg. 2, paragraph [0021] – [0022]).

7. In regards to claims 5, 24, 29, and 37, Peters, Jr. discloses the scalable system, BE signaling entity, BE media entity, and decomposed BE, wherein the BE media functions further comprises: dual tone multi-frequency (DTMF) digit detection; real time protocol (RTP) re-origination; firewall/NAT functions; and media transcoding functions (See pg. 3, paragraph [0029] and pg. 4, paragraph [0041]).

8. In regards to claim 6, Peters, Jr. discloses the scalable system, further comprises: at least one application server (AS) (See Fig. 2 and Application Servers (ASs) 32a-32b) providing at least one scalable system service function and in communication with said CCE (See pg. 2-3, paragraph [0024] and pg. 4, paragraph [0039]).

9. In regards to claims 7, 20, and 36, Peters, Jr. discloses the scalable system, BE signaling entity, and decomposed BE, wherein the communication with said CCE uses a session initiation protocol (SIP) (See pg. 2, paragraph [0022]).

10. In regards to claims 8, 21, 26, and 38, Peters, Jr. discloses the scalable system, BE signaling entity, BE media entity, and decomposed BE, wherein the said communication with the BE signaling entity is a master/slave protocol where the BE signaling entity acts as the master and the BE media entity acts as the slave (See pg. 2, paragraph [0022] and pg. 3, paragraph [0027]).

11. In regards to claim 9, Peters, Jr. discloses the scalable system, further comprises: said first BE media entity and said second BE media entity located physically apart from each other and in closer proximity to said user devices than to said BE signaling entity; and a call being placed between the said first and second user devices comprising signaling messages and media transfers, wherein the timing threshold for the signaling

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messages is less than a few seconds and the timing threshold for the media transfers is less than 300 milliseconds or a value not to exceed the perceptible limit of naturalness of interactive human communication (See pg. 3, paragraph [0029] – [0030]).

12. In regards to claim 10, Peters, Jr. discloses the scalable system, wherein upon a DTMF digit is detected by the BE media entity the BE media entity notifies the BE signaling entity of DTMF digit detection which notifies the AS of the event over a separate signaling path (See pg. 3, paragraph [0029] – [0030] and pg. 4, paragraph [0039]).

13. In regards to claim 11, Peters, Jr. discloses the scalable system, further comprises: a call admission control (CAC) entity in communication with said scalable BE and in communication with said CCE; a media server (MS) entity (See Fig. 2 and Media Server (MS) 30) in communication with said CCE; a service broker (SB) entity (See Fig. 2 and Service Broker (SB) 36) in communication with said CCE; and a network routing engine (NRE) (See Fig. 2 and Network Routing Engine (NRE) 33) in communication with said CCE (See pg. 2, paragraph [0018]).

14. In regards to claim 12, Peters, Jr. discloses the scalable system, wherein the at least one scalable border element further comprises: a BE signaling entity providing BE signaling functions and in communication with said CCE; a first BE media entity providing BE media functions in communication with said BE signaling entity; a second BE media entity providing BE media functions in communication with said BE signaling entity and in communication with said first BE media entity for-media transfers; a first BE firewall/network address translation (FW/NAT) entity providing BE FW/NAT

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functions in communication with said first BE media entity and in communication with said first user device for initiating a call; and a second BE firewall/network address translation (FW/NAT) entity providing BE FW/NAT functions in communication with said second BE media entity and in communication with said second user device acting as a call destination device (See pg. 2, paragraph [0021] – [0022]).

15. In regards to claim 13, Peters, Jr. discloses the scalable system, wherein the BE media functions further comprises: dual tone multi-frequency (DTMF) digit detection; real time protocol (RTP) re-origination; and media transcoding functions (See pg. 3, paragraph [0029] – [0030]).

16. In regards to claim 14, Peters, Jr. discloses the scalable system, wherein the at least one scalable border element further comprises: a BE signaling entity providing BE signaling functions and in communication with said CCE; at least one media transcoding entity providing BE media transcoding functions; a first BE media entity providing BE media functions in communication with said BE signaling entity and in communication with said at least one media transcoding entity; a second BE media entity providing BE media functions in communication with said BE signaling entity, in communication with said first BE media entity for media transfers and in communication with said at least one media transcoding entity; a first BE firewall/network address translation (FW/NAT) entity providing BE FW/NAT functions in communication with said first BE media entity and in communication with said first user device for initiating a call; and a second BE firewall/network address translation (FW/NAT) entity providing BE FW/NAT functions in communication with said second BE media entity and in communication with said

second user device acting as a call destination device (See pg. 2, paragraph [0021] – [0022]).

17. In regards to claim 15, Peters, Jr. discloses the scalable system, wherein the BE media functions further comprises: dual tone multi-frequency (DTMF) digit detection; and real time protocol (RTP) re-origination (See pg. 3, paragraph [0029] – [0030]).

18. In regards to claim 16, Peters, Jr. discloses a method of connecting a call between user devices (e.g., communication devices) (See pg. 1, paragraph [0004]) comprising: connecting a first user device (See Fig. 2 and first communication device 22a) for initiating a call to at least one scalable border element (BE), wherein the at least one scalable border element comprises: a BE signaling entity (e.g., H.323 BE 26c, See Fig. 2) providing BE signaling functions and in communication with said CCE; a first BE media entity (e.g., SIP BE 26d) providing BE media functions in communication with said BE signaling entity and in communication with said first user device; and a second BE media entity (e.g., SIP BE 26b) providing BE media functions in communication with said BE signaling entity, in communication with said first BE media entity for media transfers and in communication with a second user device (See Fig. 2 and second communication device 22b) acting as a call destination device (See pg. 2, paragraph [0022]); receiving in the BE signaling entity a signaling message from said first user device to setup a call; communicating the signaling message from the BE signaling entity to a call control element (CCE) (See Fig. 2 and Call Control Element (CCE) 24) that manages the call flow process and determines a path to a destination user device (See Fig. 2 and second communication device 22b) and a second BE media entity

associated with said second user device (See pg. 2, paragraph [0021] – [0022]); opening pinholes for media streams; connecting the said first BE media entity to the second BE media entity for media transfers; communicating between the CCE and the second BE media entity to determine if transcoding is required and if it is invoking the appropriate BE media entity to provide the transcoding function; and establishing the call connection between the first user device initiating the call and the second user device (See pg. 2, paragraph [0022] and pg. 3, paragraph [0029] – [0030]).

19. In regards to claim 17, Peters, Jr. discloses the method, wherein the call connection may be terminated, the method further comprises: communicating between said CCE and said BE signaling entities when either of said first user device or said second user device indicates it is ending the call; and communicating call termination from said CCE to said first and second BE media entities to close the pinholes thereby terminating the call (See pg. 2-3, paragraph [0024]).

20. In regards to claim 18, Peters, Jr. discloses the method, wherein said CCE that manages of the call flow process and determines the destination BE and its associated BE media entity further comprises: communicating with a service broker to determine whether a service feature is required; communicating with an application server to service the call; and communicating with a media server to provide media stream functions if required (See pg. 2, paragraph [0018]).

21 In regards to claims 19, 25, and 31, Peters, Jr. discloses a border element (BE) signaling entity, BE media entity, and decomposed BE providing signaling functions to at least one connected BE media entity (Fig. 2 and Border Elements (BEs) 26a-26d)

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providing media functions and a connected call control element (CCE) (See Fig. 2 and Call Control Element (CCE) 24), the BE signaling entity comprising: a communication interface to said plurality of connected BE media entities (e.g., BEs 26a-26d), wherein said plurality of connected BE media entities and said BE signaling entity comprise a decomposed BE configured to act as a single integrated functional entity; and a communication interface to said CCE (See pg. 2, paragraph [0021] – [0022]).

22. In regards to claims 22, 27, and 39, Peters, Jr. discloses the BE signaling entity, BE media entity, and decomposed BE, wherein the master-slave protocol is media gateway control protocol (MGCP) or media gate control protocol (MEGACO) or internet protocol device control (IPDC) (See pg. 2, paragraph [0019]).

23. In regards to claims 30 and 40, Peters, Jr. discloses the BE media entity and decomposed BE, wherein the communication interface to at least one other BE media entity uses real time protocol (RTP) (See pg. 3, paragraph [0029]).

24. In regards to claim 33, Peters, Jr. discloses the decomposed BE, wherein the call setup signaling functions further comprises: access control functions for security; quality of service functions; and accounting functions (See pg. 3, paragraph [0029] and pg. 4, paragraph [0041]).

25. In regards to claim 34, Peters, Jr. discloses decomposed BE, wherein the transcoding functions further comprises: determination whether transcoding is required; determining the type of transcoding required; setting up the path to include transcoding if required; and transcoding the communications between connected users if required (See pg. 3, paragraph [0029] – [0030]).

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26. In regards to claims 41, Peters, Jr. discloses the decomposed BE, wherein the communication with at least one user device uses RTP (See pg. 3, paragraph [0029]) and SIP (See pg. 2, paragraph [0022]).

27. In regards to claim 42, Peters, Jr. discloses a computer-readable medium encoded with computer executable instructions that when executed cause a computer system to perform call connection services between user devices using decomposed border elements (BEs), made up of at least one BE signaling entity and a plurality of BE media entities (See Fig. 2 and Border Elements (BEs) 26a-26d), between the user devices and the computer system, by performing the steps of: connecting a user device (See Fig. 2 and first communication device 22a) for initiating a call to a first BE media entity and to a BE signaling entity; receiving in the BE signaling entity a signaling message from a user device to setup a call; communicating the signaling message from the BE signaling entity to a call control element (CCE) (See Fig. 2 and Call Control Element (CCE) 24) that manages the call flow process and determines a path to a destination user device and a second BE media entity associated with the destination user device (See Fig. 2 and second communication device 22b); opening pinholes for media streams; connecting the said first BE media entity to the second BE media entity for media transfers; communicating between the CCE and the second BE media entity to determine if transcoding is required and if it is invoking the appropriate BE media entity to provide the transcoding function (See pg. 2, paragraph [0021] – [0022]) ; and establishing a call connection between the user device initiating the call and the destination user device (See pg. 3, paragraph [0029] – [0030]).

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28. In regards to claim 43, Peters, Jr. discloses the computer readable medium, wherein the call connection may be terminated, by further performing the steps of: communicating between said CCE and said BE signaling entities when either said user device indicates it is ending the call; and communicating call termination from said CCE to said first and second BE media entities to close the pinholes thereby terminating the call (See pg. 2-3, paragraph [0024]).

29. In regards to claim 44, Peters, Jr. discloses the computer readable medium, wherein said CCE that manages of the call flow process and determines the destination BE and its associated BE media entity by further performing the steps of: communicating with a service broker to determine whether a service feature is required; communicating with an application server to service the call; and communicating with a media server to provide media stream functions if required (See pg. 2, paragraph [0018]).

Response to Arguments

30. Applicant's arguments filed 05/18/2009 have been fully considered but they are not persuasive.

31. In response to Applicants' argument that Peters fails to teach or to suggest a scalable system for providing real time communication services between user devices having at least one scalable border element comprises: a BE signaling entity providing BE signaling functions and in communication with said CCE; a first BE media entity providing BE media functions in communication with said BE signaling entity and in

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communication with said first user device for initiating a call; and a second BE media entity providing BE media functions in communication with said BE signaling entity, in communication with said first BE media entity for media transfers and in communication with a second user device acting as a call destination device, Examiner respectfully disagrees. Peters does teach and suggest a scalable system for providing real time communication services between user devices having at least one scalable border element comprises: a BE signaling entity (e.g., H.323 BE 26c, See Fig. 2) providing BE signaling functions and in communication with said CCE; a first BE media entity (e.g., SIP BE 26d) providing BE media functions in communication with said BE signaling entity and in communication with said first user device (See Fig. 2 and first communication device 22a) for initiating a call; and a second BE media entity (e.g., SIP BE 26b) providing BE media functions in communication with said BE signaling entity, in communication with said first BE media entity for media transfers and in communication with a second user device (See Fig. 2 and second communication device 22b) acting as a call destination device (See pg. 2, paragraph [0022]).

Conclusion

32. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

33. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

34. Any inquiry concerning this communication or earlier communications from the examiner should be directed to THJUAN K. ADDY whose telephone number is (571)272-7486. The examiner can normally be reached on Mon-Fri 8:30-5:00pm.

35. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ahmad Matar can be reached on (571) 272-7488. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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36. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Thjuan K. Addy/
Primary Examiner, Art Unit 2614